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tance; the faintness of the components almost forbidding the slightest illumination, though they bear a high power on Clark's 8-inch object-glass,—about 700 suiting them best. My results are $P = 58^{\circ}{\cdot}97$; $D = 1''{\cdot}85 \pm$. It has been shown by Struve (*Pos. Mediæ*, p. ccxvii.) that μ and its companion have a common proper motion; so that in this respect they are similar to μ and μ^2 *Boötis;* and as the companion of μ *Herculis* has now been discovered to be *double*, it only remains that it should prove to be *binary* to render the resemblance complete. It is, therefore, earnestly commended to the attention of those observers who possess telescopes competent to deal with it. As the small star *precedes* the large one, the former is properly μ^1, and the latter, μ^2, if that nomenclature be adopted.

"8. This star is about as difficult as the closest of the Poulkova catalogue; and though on a fine night elongated with the 8-inch object-glass I now have in use, would require the full power of a 15-inch refractor fairly to divide it. That it attracted Mr. Clark's attention as a double star is sufficient to prove that his eye as well as his telescope must possess extraordinary power of definition.

"9. This double star forms a good introduction to the small one of μ *Herculis;* its components being brighter by about half a magnitude of my scale. With my 8-inch object-glass and power 697, I have obtained, $P = 229^{\circ}{\cdot}48$; $D = 1''{\cdot}119$.

"11. A very difficult object, though decidedly elongated with a 7½-inch aperture. My measures in 1854 gave, $P = 178^{\circ}{\cdot}10$; $D = 0''{\cdot}425$, the latter a mean of two estimations.

"12. A neat and not very difficult object; it ought certainly to have been seen at Dorpat if it were as separate then as it is now. My measures with Clark's 7½-inch object-glass gave in 1854, $P = 333^{\circ}{\cdot}76$; $D = 0''{\cdot}863$."

"*Haddenham, Thame, July* 9, 1857."

Results of the Observations of Small Planets made at the Royal Observatory, Greenwich, in the Month of June, 1857.

(*Communicated by the Astronomer Royal.*)

Phocea.

Mean Solar Time of Observation.		Apparent R.A.	Apparent N.P.D.
	h m s	h m s	° ′ ″
1857, June 17	13 24 55·3	19 9 52·16	72 58 0·61
22	13 2 23·1	19 6 59·07	71 40 35·90
24	12 53 13·6	19 5 41·15	71 13 0·26
26	12 44 0·2	19 4 19·37	70 47 32·54
27	12 39 21·9	19 3 36·93	70 35 33·41

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Lætitia.

Mean Solar Time of Observation.			Apparent R.A.	Apparent N.P.D.
		h m s	h m s	° ′ ″
1857, June	1	11 31 34·8	16 13 8·12	95 7 8·68
	2	11 26 49·2	16 12 18·31	95 5 32·04
	8	10 58 23·6	16 7 27·37	94 59 7·99
	12	10 39 37·9	16 4 24·88	94 57 50·19
	13	10 34 58·0	16 3 40·72	94 57 54·50
	15	10 25 41·4	16 2 15·76	94 58 25·64
	17	10 16 27·9	16 0 53·80	94 59 36·76
	22	9 53 42·6	15 57 47·54	95 5 9·12
	23	9 49 12·6	15 57 13·39	95 6 41·51
	24	9 44 43·9	15 56 40·52	95 8 21·48

On the Application of the Formulæ for Precession in the case of Stars near to the Pole; with a Correction of a trifling Error in the Table given by Mr. Baily in the Preface of the B.A. Catalogue. By R. C. Carrington, Esq.

In the exposition of the formulæ of Bohnenberger, given by Bessel in the *Tabulæ Regiomontanæ*, and elsewhere; although it has manifestly been the aim to attain the utmost brevity, it does not appear to have been noticed that the expressions for the auxiliary angles

$$(z+\lambda),\quad (z'-\lambda'),\quad \text{and } \theta,$$

may be given in formulæ involving only the times and constants, in all cases in which the tangent of the angle $\frac{1}{2}(\psi'-\psi)$ does not sensibly differ from its circular measure, cases which include all those commonly occuring. Thus, for Bessel's constants, if the star have to be brought from y to y', and $t=y-1750{\cdot}0$, and $t'=y'-1750{\cdot}0$,—

$$\begin{aligned} z+\lambda &= +23''{\cdot}0144\,(t'-t) - 0''{\cdot}0115\,(t'+t) - 0''{\cdot}000056\,.\,t'^2 - 0''{\cdot}000210\,.\,t^2 \\ z'-\lambda' &= +23{\cdot}0144\,(t'-t) + 0{\cdot}0115\,(t'+t) + 0{\cdot}000210\,.\,t'^2 + 0{\cdot}000056\,.\,t^2 \\ \theta &= +20{\cdot}0652\,(t'-t) \qquad \ldots\ldots \qquad - 0{\cdot}000048\,.\,t'^2 + 0{\cdot}000048\,.\,t^2 \end{aligned}$$

Expressed thus, we perceive at once that Mr. Baily has fallen into error in assuming, in page 40 of the Preface of the B.A.C., that for 1850·0 the values of $z+\lambda$ and $z'-\lambda'$ are each evanescent, as well as in stating that their variations are uniform. In fact, the differences are nearly constant, and for 1850·0 the terms $(z+\lambda)+(z'-\lambda')$ cancel one another. The oversight introduces a discontinuity in the values tabulated, which perplexed me, in

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